

REMARKS

Claims 12, 13, 16, 17, 20 and 21 are presently in the application. Claims 1-11, 14, 15, 18 and 19 have been canceled.

Para. [0027] has been corrected to refer to the angle (∞) in Fig. 4, rather than to the angle “a.”

The examiner’s indication of allowable subject matter in claims 12, 16 and 20 is greatly appreciated. Claim 12 has been amended to include all of the language of claim 8. The language of 10, however, has not been incorporated into claim 12, because the language of claim 10 is not necessary to establish the patentability of claim 12.

Claim 9 has been rewritten as new claim 21 and amended to recite that “the chamfers at the corners of the piezoelectric actuator (1) are embodied so that the edge (10) on the side that is not contacted by the outer electrodes (5, 6) has an acute angle (∞) less than 45°.” Support for the amendment is found in para. [0027] and in Fig. 4.

Claim 12 is directed to a piezoelectric actuator, comprising a multilayered structure of piezoelectric layers (2) with inner electrodes (3, 4) disposed between them, a contacting of the inner electrodes (3, 4) on alternating sides with outer electrodes (5, 6), and chamfered corners or edges (10) on the piezoelectric actuator (1), wherein the inner electrodes (3) having a contour in the region of the corners or edges (10), on the sides of the piezoelectric actuator (1) on which the inner electrodes (3, 4) with alternating polarities are routed to the respective outer electrodes (5, 6), that makes it possible to achieve a lower field intensity between the inner electrodes (3, 4) of alternating polarities in the structure of piezoelectric layers (2), wherein the chamfers at the

corners of the piezoelectric actuator (1) are embodied so that the entire corner of the piezoelectric actuator (1) is beveled and the contour of the respectively non-contacted inner electrode (3), is rounded.

Kondo teaches a piezoelectric actuator in which the corners of the piezoelectric actuator, including the corners of the inner electrodes, are either rounded (Fig. 2) or beveled (Fig. 10).

Sato et al (US 2002/0152857) teaches a piezoelectric actuator in which the corners of the piezoelectric actuator, including the corners of the inner electrodes, are beveled (Figs. 35 and 36(a)-36(c)).

To support a rejection of a claim under 35 U.S.C. 102(b), it must be shown that each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

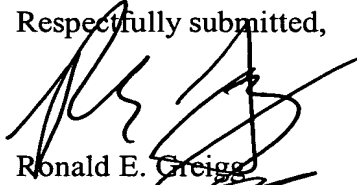
Neither Kondo nor Sato et al teaches or suggests a piezoelectric actuator in which the corner of the piezoelectric actuator is beveled and the contour of the respectively non-contacted inner electrodes is rounded. Accordingly, claims 12, 13, 16, 17, 20 and 21 are not anticipated or rendered obvious by the teachings of Kondo and Sato et al, taken alone or in combination.

The Commissioner is hereby authorized to charge any/all fees associated with this communication to Deposit Account 07-2100.

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Entry of the amendment and allowance of the claims are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Greigg', is written over the printed name.

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